

Amendment Dated August 29, 2007
Serial No. 10/678,703

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IN THE CLAIMS

Claim 1. (Currently Amended) A mobile inter-mesh communication point, comprising:

a first wireless mesh network port configured to operate utilizing at least one IEEE 802.11x standard to participate on a first level wireless mesh network implemented using the at least one 802.11x standard; and

a second wireless mesh network port configured to operate utilizing at least one IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard.

Claim 2. (Original) The mobile inter-mesh communication point of claim 1, wherein the first wireless mesh network port and the second wireless mesh network port are each part of separate network elements.

Claim 3. (Original) The mobile inter-mesh communication point of claim 2, further comprising a communication link between the separate network elements.

Claim 4. (Original) The mobile inter-mesh communication point of claim 1, wherein the first wireless mesh network port and the second wireless mesh network port are part of one network element.

Claim 5. (Original) The mobile inter-mesh communication point of claim 1, further comprising switching/routing circuitry configured to interconnect said first wireless mesh network port with said second wireless mesh network port.

Claims 6-7. (Canceled)

Claim 8. (Original) The mobile inter-mesh communication point of claim 1, further comprising an interface to a DC power supply.

Amendment Dated August 29, 2007
Serial No. 10/678,703

Claim 9. (Original) The mobile inter-mesh communication point of claim 8, wherein the interface to a DC power supply is configured to receive power from a vehicle power supply.

Claim 10. (Original) The mobile inter-mesh communication point of claim 9, further comprising a vehicle.

Claim 11. (Original) The mobile inter-mesh communication point of claim 1, further comprising a battery.

Claim 12. (Original) The mobile inter-mesh communication point of claim 1, further comprising a fuel cell.

Claim 13. (Currently Amended) The mobile inter-mesh communication point of claim 1, wherein the inter-mesh communication point is configured to be disposed in a vehicle, said mobile inter-mesh communication point further comprising a battery discharge controller configured to monitor a battery level of the vehicle and turn off the inter-mesh communication point when the battery level of the vehicle drops below a threshold value.

Claim 14. (Original) The mobile inter-mesh communication point of claim 1, wherein the inter-mesh communication point is disposed in an emergency vehicle, and wherein the second wireless mesh network port is configured to generate priority traffic for transmission over the second wireless mesh network.

Claim 15. (Currently Amended) A method of providing a dynamically adjusting mesh network topography, comprising:

enabling a first mesh networking level implemented using at least one IEEE 802.11x standard;

enabling a mobile inter-mesh communication point to participate in the first mesh networking level; and

Amendment Dated August 29, 2007
Serial No. 10/678,703

permitting a first mobile inter-mesh communication point to transmit onto the first mesh networking level data received from a second mesh networking level implemented using at least one IEEE 802.16x standard.

Claim 16. (Original) The method of claim 15, wherein the first mobile inter-mesh communication point is enabled to participate in the first mesh networking level as a relay point.

Claim 17. (Original) The method of claim 15, wherein the first mobile inter-mesh communication point is allowed to transmit onto the first mesh networking level while moving.

Claim 18. (Original) The method of claim 15, further comprising selecting a second mobile inter-mesh communication point when the first mobile inter-mesh communication point moves away from users in the second mesh networking level.

Claim 19. (Original) The method of claim 15, further comprising establishing policy on the first mesh networking level; and requesting the policy to be implemented by the first mobile inter-mesh communication point.

Claim 20. (Original) The method of claim 19, further comprising not permitting the first mobile inter-mesh communication point to transmit onto the first mesh networking level data if the first mobile intermesh communication point fails to implement the policy.

Claim 21. (Original) The method of claim 15, further comprising enabling a mobile inter-mesh communication point to transmit a limited amount of self-generated data onto the first level mesh network.

Claim 22. (Original) The method of claim 15, further comprising selectively activating and deactivating the mobile inter-mesh communication point depending on where the inter-mesh communication point is in the first level mesh network in relation to a traffic density on the first level mesh network.

Amendment Dated August 29, 2007
Serial No. 10/678,703

Claim 23. (Currently Amended) The method of claim 15, further comprising compensating an owner of a vehicle containing the ~~entity associated with the~~ first mobile inter-mesh communication point for permitting the first mobile inter-mesh communication point to transmit onto the first mesh networking level the data received from the second mesh networking level.

Claim 24. (Original) The method of claim 23, wherein compensating comprises at least one of:
providing free access to the first mesh networking level;
providing reduced fee access to the first mesh networking level;
paying based on an amount of traffic handled by the inter-mesh communication point;
and
crediting an account associated with the inter-mesh communication point.

Claims 25-26. (Canceled)

Claim 27. (Currently Amended) A vehicle, comprising:
a system configured to allow the vehicle to move;
an electrical system; and
an inter-mesh communication system connected to the electrical system and configured to communicate on two orthogonal mesh networks, the inter-mesh communication system comprising a first wireless mesh network port configured to operate utilizing at least one IEEE 802.11x standard to participate on a first level wireless mesh network implemented using the at least one 802.11x standard, and a second wireless mesh network port configured to operate utilizing at least one IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard.